Evapotranspiration & Surface Resistance

Product Description

This Level 3 product consists of Evapotranspiration (ET, Param. 3722) and Surface Resistance(Param. 4335) parameters and have temporal resolution of 8 days at a spatial resolution of 1 km over the land surface only. The Land Surface Resistance is a post-launch product to calculate a remotely-sensed epsilon for NPP and PSN. The spatial resolution of these products is 1 km.

Research & Applications

These two parameters are essential to global modeling of climate, water balance and gas traces. In addition, they are required in estimating photosynthesis, respiration, and net primary production. The surface resistance product is a PM-1 (post-launch) research data product intended for real-time implementations. Practical applications of this product are for wildfire danger monitoring and crop/range drought monitoring.

Data Set Evolution

The ET product is derived from the product of surface resistance, vegetation index (MVI), photosynthetic active radiation (PAR) and the latent heat of vaporization.

Suggested Reading

Dickinson, R.E., 1987.

Goward, S.N. and A.S. Hope., 1989.

Nemani, R. and S. W. Running, 1989.

Nemani, *et al.*, 1993b.

Running, S., *et al.,* 1994.

Running, S.W., *et al.*, 1989.

MOD 16
PRODUCT SUMMARY

Coverage:
Global

Spatial/Temporal Characteristics:
1 km/8 days

Key Science Applications:
global water balance, net primary production

Key Geophysical Parameters:
surface resistance, evapotranspiration

Processing Level:
4

Product Type:
PM-1, post-launch

Science Team Contact:
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